

Serial No.: 10/748,285

Response to Final dated: February 9, 2007

Final Office Action dated: November 9, 2006

REMARKS/ARGUMENTS

Claims 1-20 are pending in the application.

Claim Objections

Claims 4 and 9 are objected to due to informalities, requiring grammatical correction. Claim 10 is objected to due to informalities, requiring grammatical correction. Applicant has amended the claims in accordance with Examiner's recommendations.

Rejections Under 35 U.S.C. § 102(b)

Claims 1-2, 11-12, and 16-17 are rejected under 35 U.S.C. § 102 (b) as being anticipated by Rotenberg et al., "Trace Cache: a Low Latency Approach to High Bandwidth Instruction Fetching," Eric Rotenberg, Steve Bennett, James E. Smith, IEEE, 1996 (hereinafter referred to as "Rotenberg").

Rotenberg generally discloses a very primitive and simple version of a trace cache. Applicant's claimed invention contains the following limitation:

"Reviewing *multiple* traces that have a same beginning instruction." [Emphasis Added]

Page 4 of the Office Action dated November 9, 2006 asserts that this element is taught by the following section of Rotenberg:

"Specifically, a trace cache hit requires that (1) the fetch address match the tag and (2) the branch predictions match the flags."

Neither this section cited by the Office Action nor any other section of Rotenberg, however, mentions reviewing *multiple* traces that have a same beginning instruction. In fact, Rotenberg

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even states that "a downside of the simple trace cache is that from a given starting address, only one trace can be stored." Rotenberg, page 6, lines 27-33. Rotenberg, which is written with the candor of an academic publication and not the abstraction of a patent disclosure, openly admits that there is an unfilled need in the art for a trace cache capable of discerning between traces that have the same beginning instruction.

For at least all the reasons mentioned above, applicant asserts that independent claim 1 is allowable and that dependent claim 2 is allowable as depending from an allowable independent claim. Independent claims 11 and 16 contain limitations including "multiple traces" similar to those of independent claim 1, and applicant asserts they are allowable for at least all the same reasons mentioned above. Applicant additionally asserts that dependent claims 12 and 17 are allowable as depending from allowable independent claims.

Accordingly, applicant respectfully requests that the rejection of claims 1, 2, 11, 12, 16, and 17 under 35 U.S.C. § 102(b) be withdrawn.

Rejections Under 35 U.S.C. § 103(a)

Claims 3, 13, and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rotenberg in view of Nair (U.S. Patent No. 6,304,962). Claims 4-5, 14-15, and 19-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rotenberg in view of Nair in view of Patel. Claims 6-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rotenberg in view of Andrew S. Tanenbaum, *Structured Computer Organization*, 1984. Pg. 10-11 (hereinafter Tanenbaum). Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rotenberg in view of Nair and in view of Tanenbaum. Claims 9-10 are rejected under 35

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U.S.C. § 103(a) as being unpatentable over Rotenberg in view of Nair and in view of Patel and in view of Tanenbaum.

In light of the deficiencies of Rotenberg discussed above, applicant asserts that independent claim 6 is allowable and that dependent claims 3-7, 8-10, 13-15, and 18-20 are allowable as depending from allowable independent claims.

Accordingly, applicant respectfully requests the rejection under 35 U.S.C. § 103(a) be withdrawn.

The Commissioner is hereby authorized to charge payment of any additional fees and/or patent application processing fees required under 37 C.F.R. § 1.16 and § 1.17 or credit any overpayment to Deposit Account No. 11-0600

Respectfully submitted,

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